

AMENDMENTS TO THE CLAIMS:

The following listing of the claims replaces all previous versions, and listings, of the claims. Please add new dependent claims 24, 25, 26 and 27 and amend claims 8, 17, 22 and 23 as follows:

Claim 1. (canceled)

2. (previously presented) The method as recited in Claim 17 or 8, wherein the surface of the refractory material is heated by the laser radiation to at least 2000°C.

3. (previously presented) The method as recited in Claim 17 or 8, wherein a power density of 2 to 4 W per mm² is introduced into the surface.

4. (previously presented) The method as recited in Claim 17 or 8, wherein the treatment with the laser radiation is carried out with an effective exposure time of 0.1 to 5 s.

5. (previously presented) The method as recited in Claim 17 or 8, wherein the surface is treated using a laser beam with a scan rate of 1 - 10 mm/s, while the laser beam on the surface has a diameter of 2 - 5 mm.

6. (previously presented) The method as recited in Claim 17 or 8, wherein said laser radiation has a wavelength in the range of 9 to 11 μm .

Claim 7. (canceled)

8. (currently amended) A method of treating refractory material of a Danner blowpipe or a drawing die that comes into contact with a glass melt during glass production, wherein said refractory material has a composition comprising Al_2O_3 , SiO_2 , ZrO_2 and another oxide, wherein said another oxide is MgO or CrO and said refractory material is composed of fireclay, silimanite bricks, zirconium and zirconium-containing bricks, and/or fusion-cast bricks, said method consisting of the steps of:

a) treating a surface of the refractory material with laser radiation from a CO_2 laser so as to form a surface layer that is a closed vitreous layer on said surface, said closed vitreous layer containing components that are components of the refractory material;

b) before or during the treatment with the laser radiation, spraying the surface with a powder or a solution that contains zirconium-containing and/or aluminium-containing compounds; and

c) after the treating of the surface of the refractory material with the laser radiation, optionally tempering the refractory material;

wherein said glass melt comes into contact with said closed vitreous layer during said glass production.

Claims 9 to 16. (canceled)

17. (currently amended) A method of treating refractory material of a Danner blowpipe or a drawing die that comes into contact with a glass melt during glass production, wherein said refractory material has a composition comprising Al_2O_3 , SiO_2 , ZrO_2 and another oxide, wherein said another oxide is MgO or CrO and said refractory material is composed of fireclay, silimanite bricks, zirconium and zirconium-containing bricks, and/or fusion-cast bricks, said method consisting of the steps of:

a) treating a surface of the refractory material with laser radiation from a CO_2 laser so as to form a surface layer that is a closed vitreous layer on said surface, said closed vitreous layer containing components that are components of the refractory material; and

b) after the treating of the surface of the refractory material with the laser radiation, optionally tempering the refractory material;
wherein said glass melt comes into contact with said closed

vitreous layer during said glass production.

18. (previously presented) The method as recited in Claim 17, wherein the surface layer has a thickness of 100 to 1000 μm .

19. (previously presented) The method as recited in Claim 17, wherein zirconium-containing and/or aluminium-containing compounds are located in the surface layer.

Claim 20. (canceled)

21. (previously presented) The method as recited in claim 17, wherein prior to contact with the glass melt said surface is treated with said laser radiation to form said closed vitreous layer.

22. (currently amended) A method of manufacturing and/or processing a glass melt, said method comprising bringing the glass melt into contact with a surface of a refractory material composed of Al_2O_3 , SiO_2 , ZrO_2 and another oxide, wherein said another oxide is MgO or CrO , and said refractory material is composed of fireclay, sillimanite bricks, zirconium and zirconium-containing bricks, and/or fusion-cast bricks, wherein prior to the bringing of the glass melt into contact with the surface of the refractory material said surface

of the refractory material has been treated by a process consisting of the steps of:

a) treating the surface of the refractory material with laser radiation from a CO₂ laser in order to form a surface layer that is a closed vitreous layer on said surface of said refractory material, said closed vitreous layer containing components that are components of the refractory material; and

b) after the treating of the surface of the refractory material with the laser radiation, optionally tempering the refractory material;

wherein said glass melt comes into contact with said closed vitreous layer during said glass manufacturing and/or processing.

23. (currently amended) A method of manufacturing and/or processing a glass melt, said method comprising bringing the glass melt into contact with a surface of a refractory material composed of Al₂O₃, SiO₂, ZrO₂ and another oxide, wherein said another oxide is MgO or CrO, and said refractory material is composed of fireclay, silimanite bricks, zirconium and zirconium-containing bricks, and/or fusion-cast bricks, wherein prior to the bringing of the glass melt into contact with the surface of the refractory material the surface of the refractory material has been treated by a process consisting of the steps of:

a) treating the surface of the refractory material with laser radiation from a CO₂ laser in order to form a surface layer that is a closed vitreous layer on said surface of said refractory material, said closed vitreous layer containing components that are components of the refractory material;

b) before or during treatment of the surface with the laser radiation optionally spraying the surface of the refractory material with a powder or solution that contains zirconium-containing and/or aluminium-containing compounds; and

c) after the treating of the surface of the refractory material with the laser radiation, optionally tempering the refractory material;

wherein said glass melt comes into contact with said closed vitreous layer during said glass manufacturing and/or processing.

24. (new) The method as recited in Claim 8, wherein no material is removed from said surface during the treating of the surface of the refractory material with said laser radiation.

25. (new) The method as recited in Claim 17, wherein no material is removed from said surface during the treating of the surface of the refractory material with said laser radiation.

26. (new) The method as recited in Claim 22, wherein no material is removed from said surface during the treating of the surface of the refractory material with said laser radiation.

27. (new) The method as recited in Claim 23, wherein no material is removed from said surface during the treating of the surface of the refractory material with said laser radiation.